

Addressing the Social Determinants of Health:

“Vulnerable” Populations and the Presentation of Healthy People 2020

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Abstract: Population health is a concept at the core of national healthcare reform efforts. Population health focuses on the social determinants of health, or the living conditions of people at work, home, and play. To participate in population health initiatives, organizations must collect population-level data, creating a discourse of resilience-as-ability-to-cope through mapping community demographics, as though a counting of bodies and their material conditions creates a foundation for sustained, improved health outcomes. In 2010, the U.S. Department of Health and Human Services Office of Disease Prevention and Health Promotion (ODPHP) launched an initiative called Healthy People 2020, a set of ten-year national goals and objectives for health promotion and disease prevention. We analyze this data project, arguing that discourses of resiliency (through improved national, state, and local data collection efforts) and vulnerability (of the people who are reduced to data) create a constitutive rhetoric for U.S. public health officials to rally around the cause of population health yet exclude the very people upon whom such a cause should focus. Specifically, an examination of the ODPHP’s Healthy People 2020 website reveals that the reduction of bodies to quantification in data displays for health professionals, when viewed through the lens of Philip Wander’s Third Persona, objectifies groups of people already historically marginalized and obfuscates pathways to social action. We argue that instead, an ecological, relational definition of resilience must be fostered through autonomy of communities in the decisions they make about their own community members’ health and wellness.

Keywords: Population health, social determinants of health, resilience, vulnerability, Wander’s Third Persona, data visualization



Population-Level Health Initiatives: The Social Determinants of Health

In 2006, the World Health Organization's (WHO) Commission on Social Determinants of Health issued a report arguing that

The link between people's health and their surroundings [the social determinants of health] can no longer be ignored. Health inequities continue to grow across social classes, occupations, and ethnic groups within countries, even where more resources are made available and in spite of applying 'the best' evidence-based interventions. (WHO, 2006, n.p.)

Health professionals are increasingly aware that moving beyond the clinical to the socio-cultural is critical. To address the social determinants of health, population health—or health strategies at the population rather than individual level—are at the core of American healthcare reform efforts. Moving from a clinical care focus to a population health focus is challenging, particularly because clinical concepts of health are better understood and not aligned well with community resources (Flores, qtd. in Alper & Institute of Medicine, 2014, p. 7). The Affordable Care Act includes several incentives to healthcare organizations to address these challenges.

To participate in population health initiatives, organizations must collect population-level data and track success of targeted population-level interventions. In 2010, the U.S. Department of Health and Human Services Office of Disease Prevention and Health Promotion (ODPHP) launched an initiative called Healthy People 2020, a set of ten-year national goals and objectives for health promotion and disease prevention. The “social determinants of health” are included as a “new topic area” in these objectives (HHS, 2010, n.p.). The Healthy People initiative provides numerical targets for healthcare organizations, state and local governments, and nonprofits to strive to improve population-level data as it relates to the social determinants of health. The ODPHP then collects this data.

In this essay, we analyze this data project, arguing that in Healthy People 2020 the discourses of resiliency (through improved national, state, and local data collection efforts) and vulnerability (of the people who are reduced to data) create a constitutive

rhetoric for U.S. public health officials to rally around the cause of population health yet exclude the very people upon whom such a cause should focus. Specifically, an examination of the ODPHP's Healthy People 2020 website reveals that the reduction of bodies to quantification in data displays for health professionals, when viewed through the lens of Philip Wander's Third Persona, objectifies groups of people already historically marginalized and obfuscates pathways to social action. We begin by reviewing how rhetorics of resiliency and vulnerability have been constructed in population health discourse more broadly, and then narrow in on the rhetorical construction of these terms in the context of the Healthy People 2020 data project. We discuss the Healthy People 2020 web-based content in light of this construction and end by offering recommendations for re-design of information for this space that creates agency rather than disempowers communities to improve health and wellness at the population level.

The Discourses of Resiliency and Vulnerability in Population Health

Resilience in the face of public health risk (broadly construed, from environmental risks such as climate change to sociocultural risks such as mass gun violence) is often rhetorically constructed in opposition to vulnerability to that risk. Bridie McGreavy has studied the discursive construction of resilience from environmental risk as a human-centered capacity for coping (2016, p. 105). Vulnerability is affectability to risk, meaning those who are vulnerable are likely to be swayed or to bend in the face of risk. In discourses of resilience and vulnerability, a resistance to affectability reduces vulnerability, thereby creating strength. That strength, or ability to cope, is resilience. This definition is widely adopted in public health discourses and also evident in our particular public health example, ODPHP's Healthy People 2020.

In the last twenty years, a shift in focus has occurred in public health to focus on population health, a concept and a set of policies that include both the traditional notion of managing risk of emergent, catastrophic public health disaster, as well as health promotion, or day-to-day prevention of disease in the population through focus on non-medical factors, including social, cultural, and environmental causes of poor health. It is important to note that the interest in population health versus public health is driven both by the healthcare industry and government, as the burden of

resource allocation to pay for care for patients who are uninsured or underinsured is closely tied to the interest in population health management (Béland & Katapally, 2018, p. 369). The “vulnerable” under population health, then, must be managed in such a way to prevent expense for healthcare payers and organizations. As a trade journal for managed care networks reported, “The number of patients with chronic conditions [a key vulnerable group] is expected to rise by 37% within the next 24 years, placing significant strain on existing healthcare systems, particularly as the condition of this population is exacerbated by existing social and economic risk factors” (AJMC, 2006, n.p.). Vulnerability, then, is part and parcel with cost to the American healthcare system. A resilient patient stays healthy (and out of the hospital or clinic).

Who are the vulnerable under population health? In *At Risk in America: The Health and Health Care Needs of Vulnerable Populations in the United States*, Lu Ann Aday (2001) offers a data-driven framework of the vulnerable, with cross-cutting demographic issues (age, gender, race/ethnicity, income and education) as well as population-specific categories, including: high-risk mothers and infants, chronically ill and disabled people, persons living with HIV/AIDS, mentally ill and disabled people, alcohol or substance abusers, suicide or homicide prone people, abusing families, homeless persons, and immigrants and refugees. Numerous charts and data sets locate and enumerate individuals within these categories.

Despite Aday’s categorization and framing of vulnerability, she ultimately comes to a more ecological viewpoint of resilience and vulnerability, arguing, like McGreavy, for the reframing of discourses of resilience and vulnerability from human-centered to policy-focused solutions involving the larger ecologies humans inhabit. Unlike those within the medical-industrial complex such as payers and hospitals, Aday recommends much broader interventions than the biomedical, looking at economic and social supports for families, communities, and institutions that are relational and focused on “reciprocity, interdependence, and the common good” (2001, p. 264). A focus on relations is profoundly rhetorical and combats individualistic notions of resilience. It also reveals the connections between communities and the healthcare system that are not readily apparent. In describing the inherent shortcomings of focusing on human agency, Nathan Stormer and Bridie McGreavy (2017) argue that the ecology of relationships entangles over abilities of individuals within these systems. Rather,

by focusing on the relational, they argue that capacity and systemic adaptability (rather than human agency) are indicative of a community's ability to be resilient, while a focus on an individual's abilities merely signifies vulnerability. Stormer and McGreavy's ecological re-conception of resilience is more in line with relational policies that shift the focus toward all human and non-human actors' interdependence and alleviate the burden from only those deemed unable to cope. As Philippa Spoel and Colleen Derkatch (2019) also argue, this definition should replace resilience as "self-reliance" or "ability to cope" in order to truly work toward collective community improvement.

Categorization of vulnerable populations under a population health paradigm causes a belief that these identities are fixed and capable of being identified through big data approaches and then acted upon to improve the capabilities of individuals within these categories. As Michel Foucault famously argued in *Security, Territory, Population*, the very concept of *population* as a mechanism for social control by the nation-state has potentially harmful effects (2007). As in many other areas of scientific and medical study, the discourses of resiliency and vulnerability are constructed in population health around a belief in the power of techno-scientific solutions for problems that are socio-cultural. This belief can be harmful in the context of large-scale environmental issues, McGreavy argues, because "focusing on simple fixes masks the ideologies, inequities, and other complex factors that may also need to be addressed" (McGreavy, 2016, p. 114). The Healthy People 2020 data project we turn to next is exactly this kind of techno-scientific solution.

Healthy People 2020 and the Rhetorical Construction of Wander's Third Persona

Healthy People 2020 "provides science-based, 10-year national objectives for improving the health of all Americans" ("About Healthy People," n.d.). The goals of the initiative, as stated by the U.S. government, are three-fold:

- Encourage collaborations across communities and sectors.
- Empower individuals toward making informed health decisions.
- Measure the impact of prevention activities. ("About Healthy People," n.d.)

To make Healthy People 2020 public-facing, the ODPHP created *Healthypeople.gov*, a website to present Healthy People 2020 initiatives and data-driven resources. *Healthypeople.gov* is a data-driven digital rhetoric project with a set of tools to access, customize, and use the extensive data collected by the initiative and its partner organizations. DATA2020 is the Healthy People 2020 interactive data tool housed on the *Healthypeople.gov* website. The stated goal of this project is to “allow users to explore data and technical information related to Healthy People 2020 objectives” (“How to Use DATA2020”).

Figures 1 and 2 represent the user journey through the search, retrieval, and customization of data displays offered by the DATA2020 tool. Figure 1 is the starting point for the user to choose an objective and data sources from which to draw results. Figure 2 is a view from a search for the social determinants of health topic area. Figure 2 shows the number of potential items for customization in the display: the user can check boxes to see more information about the data, such as confidence intervals and standard error; view visualizations such as charts and graphs; view breakout data by more specific variables; and learn about methodology and download .csv files of raw data (Fig. 3).

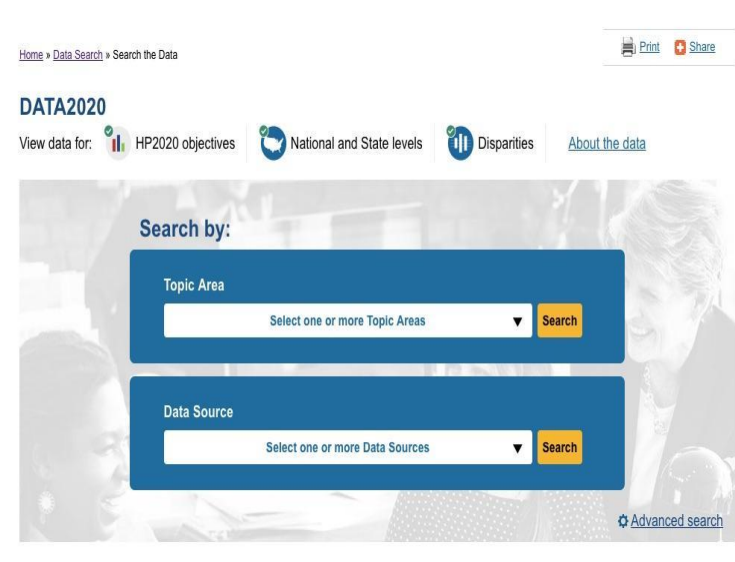


Fig 1: DATA2020 Search Function by Objective and Data Source.

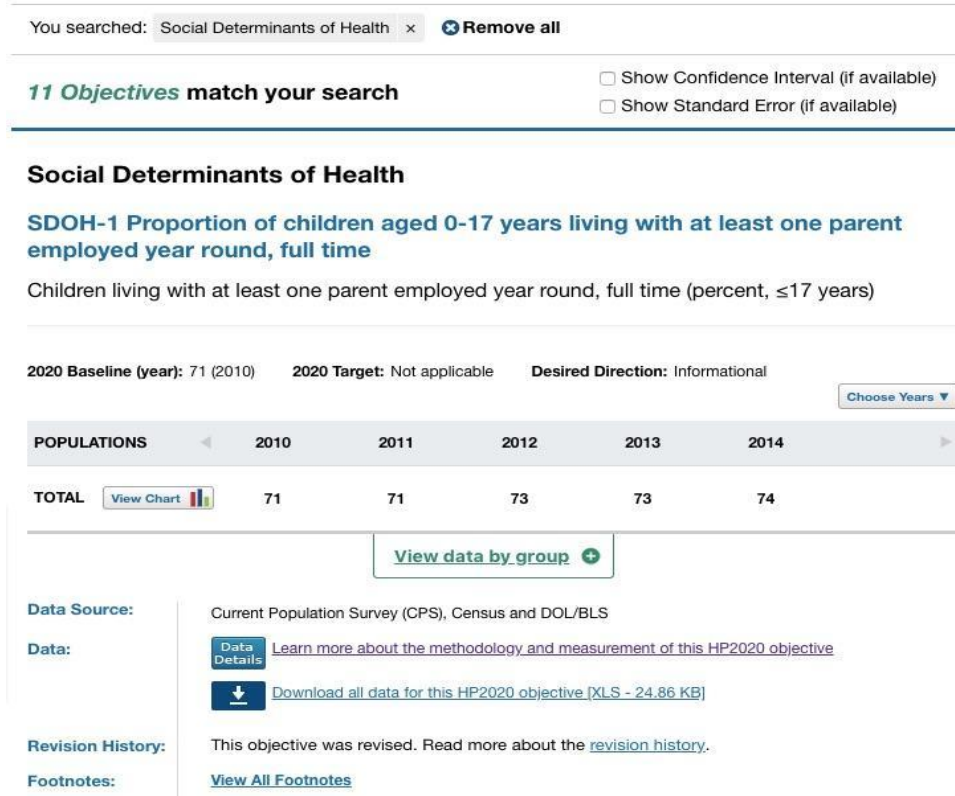


Fig. 2: Search by “Social Determinants of Health” Healthy People 2020 Objective.

The DATA2020 tool and its focus on interactivity and customization of data simultaneously makes accessible and obscure data collected in its database. The tool reflects what Katherine Hepworth described as “little acknowledgement of or reflection upon the seductive quality of data visualization” which “has dangerous implications for research quality, and the human subjects represented through research data visualizations” (2016, p. 7-8). The ability to customize and reduce complexity of social problems (as in Figure 2, employment of parents) to a fairly simple chart may be of use to a government official in need of specific data for a report, but it does not do the work of informing citizens to take action. In fact, as Hepworth argued, interactivity provides individual perspectives that “reduce complexity” (2016, p. 13), which may satisfy a specific user, but renders invisible greater insight into systems of oppression or an ability to “foster empathy” (2016, p. 19). The display in Figure 2 does not invite contemplation or reflection, but merely shows that the U.S. has improved its overall statistic from 71% to 74% of children with one full-time working parent, seeming to indicate slight improvement without context.

Part of what DATA2020 may be doing is attempting to achieve a level of clarity in its data design through streamlined displays of complex data. Charles Kostelnick argued that clarity in data design, as it is enacted in the science and social science fields, such as statistics and economics, tends to be seen as universal rather than adaptive (2007, p. 283). While professional communication and graphic design are moving more towards a “philosophy of rhetorical adaptation,” or clarity as contingent on audience, purpose, and context, this is not the case in the sciences (Kostelnick, 2007, p. 283). As a result, “[a] good match for one rhetorical situation may be a disaster in another, and vice versa” (Kostelnick, 2007, p. 284). DATA2020 is perhaps one of these disasters for audiences other than health professionals with a specific purpose for this information well at hand.

The potential for disaster is compounded in areas of research where marginalized populations are further marginalized by their treatment as data. A specific expansion of DATA2020 is the Health Disparities Tool, which focuses on “health disparities information for measurable, population-based objectives where data are available” (“Health Disparities Data,” n.d.). The ODPHP defines a health disparity as “a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage” (“Health Disparities Data,” n.d.).¹ The Healthy People DATA2020 data retrieval tool features this graphic representation of disparities on data sets that limit results based on these categories. The expressed intent of this disparity tool is to compare and contrast the disparities between different population groups (see Fig. 3).

Figure 3 visualizes efforts related to Healthy People Objective AHS-1.1, which aims to increase the proportion of persons with medical insurance. Using the health disparity tool, a user can search and retrieve the available data by geographic location. The data is then split between metropolitan and non-metropolitan

¹Health disparities “adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion” (“Health Disparities Data,” n.d.).

areas. This view shows the user that in 2012, there was a 3.5% difference in health care coverage between individuals living in metropolitan areas and those in non-metro areas.

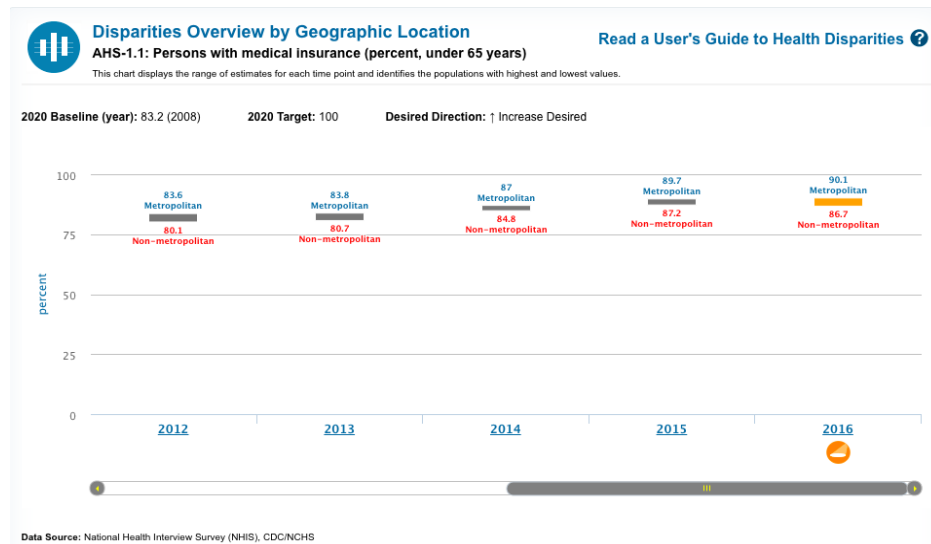


Fig. 3: Health Disparity Tool — Insured People by Geographic Location.

But what does it mean, to “see” this data? Data displays such as those provided by the DATA2020 tool create a rhetorical construct in which the objects of the data—the persons affected by health disparities—become what Philip Wander (1984) defined as a “Third Persona.” The First Persona is the U.S. ODPHP, offering the Healthy People 2020 tool as a rhetor speaking through the website. The pattern of address that the ODPHP uses constructs the user of that site as the Second Persona (“you”). The ODPHP, author of the site, speaks directly to “the user” throughout the site; most prominently, on the “How to Use DATA2020” page. The “How to Use HealthyPeople.gov” page provides more context as to how the ODPHP imagines the user. The stock image on the page is of five white professionals centered around a laptop and reviewing documents. The page asks “professionals using Healthy People” to “share your own story” (“How to Use HealthyPeople.gov,” n.d.). The page does not explicitly contemplate use by those potentially affected personally by the topic areas.

There are detrimental effects to the construction of certain persons in the narrative as the Third Persona. As Wander argued, “What is negated through the Second Persona [“you”] forms the silhouette of the Third Persona—the ‘it’ that is not present, that is objectified in a way that ‘you’ and ‘I’ are not... The potentiality of language to commend being carries with it the potential to spell out

being unacceptable, undesirable, insignificant” (1984, p. 209). The concern with data displays that negate the patient or community member in favor of the government (“I”) and health professionals (“you”) is that it renders that patient invisible, or worse, casts her in a negative light by reducing the state of those like her to a status that is undesirable and meant to be improved. In this particular case, with social determinants of health, the data represents numbers of persons who are meant to be improved in health or living condition.

If we return to Figure 3, we additionally see that much of the argument implicit to the data—how to take action or use the data—is not visible. It is implied that the user, or Second Persona, would know why disparities across geographic areas exist, or how to design an intervention to improve the proportion of insured individuals. The data displays are in effect unusable to certain audiences to take action; particularly, the objects of the data display themselves. Wander contemplated the implications of such objectification, writing that “operating through existing social, political, and economic arrangements, negation extends beyond the ‘text’ to include the ability to produce texts, to engage in discourse, to be heard in the public space” (1984, p. 210).

Discourses of Resiliency and Vulnerability and their Impact on Health Policy

Healthy People 2020 as a policy establishes a rhetorical situation wherein big data approaches to population health are created by professionals in order to improve the health of vulnerable communities and citizens. This situation is constructed through patterns of address on the website, invoking professionals to act as saviors on behalf of marginalized populations. Simultaneously, these invocations do not address—yet quantify and objectify—the “vulnerable” persons represented in data displays. This is compounded by Healthy People 2020’s discursive construction of resiliency and vulnerability as they relate to health disparities and population health.

Resiliency for communities is invoked as a “national health security” concern in the same manner that governments have used the discourse of resiliency in the face of disaster. Healthy People 2020’s website links to research from the RAND Corporation on “building community resilience,” which is defined as “the ability of

communities to withstand and mitigate the stress of a disaster” and a “key policy issue” that is “critical to national health security” (Chandra et al., 2011, p.6). As discussed earlier, this is the very essence of resilience as coping that McGreavy (2016) traces and critiques. Healthy People 2020 includes an objective of “Preparedness” focusing on “building and sustaining healthy, resilient communities, focus[ing] on connecting individuals and communities, enhancing coordination of health and human services, and building a culture of resilience” (“Preparedness,” n.d.).

This discourse of resilience stands in opposition to the discourse of vulnerability, used to describe those communities and persons who lack resources and/or are impacted by health disparities. While Hamilton Bean, Lisa Keränen, and Margaret Durfy (2011) argue that resilience and vulnerability exist in a dialectic, implying that the nature of both resiliency and vulnerability are reliant on each other, this is not necessarily reflected in the dialectical understandings of resilience and vulnerability in Healthy People. For example, Bean, Keränen, and Durfy describe resiliency, adapted from Robert McCreight, as the concept of “disaster preparedness” with a “recuperative dimension” (2011, p. 431). This assumes a state’s ability to “heal” vulnerable populations to aid in a resilient national character. However, what this idea fails to acknowledge is the state’s complicity in its making populations vulnerable to remove cultural narratives of individual trauma and therapeutic response (Bean et al., p. 433). Resiliency and vulnerability here, then, do not need to exist in a co-constitutive manner as populations can be resilient, vulnerable, or both. The state’s power to define “resilient” as well as “vulnerable” is what is problematic.

“Vulnerable populations” is a term used to describe any subject of a population-level health intervention (“Healthy Chicago 2.0,” n.d.). Figure 4 contains some of the visual rhetoric and discursive moves associated with “vulnerable populations.” For example, a stock photo of a young African American student is captioned as “The Chicago Department of Public Health (CDPH) has implemented a number of activities aimed at reducing tobacco use among LGBT communities in Chicago” (Fig. 4). This “Story from the Field” does not address the “vulnerable,” but instead focuses on the work of public health professionals on various health-related metrics. The vulnerable, not addressed, remain the object, Wander’s Third Persona. As such, there is no dialectical

relationship (wherein boundaries of meaning are not traversed). Rather, this is a specific operational definition of vulnerability that reaffirms the stratified and segregated nature of Chicago and the United States writ large. By describing some populations as objectively vulnerable, notions of philanthropic neoliberal capitalism go unchallenged.

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In This Section:	Healthy Chicago 2.0: Addressing Disparities in Vulnerable Populations
Stories from the Field	<p>To transform the health of its city, the Chicago Department of Public Health (CDPH) in 2011 created a 4-year public health agenda known as Healthy Chicago aimed at improving health and addressing disparities. The agenda focuses on 12 key priorities, including tobacco use, obesity prevention, HIV prevention, access to care, healthy mothers and babies, and violence prevention, all of which reflect areas represented by the Healthy People 2020 Leading Health Indicators.¹ As a result of Healthy Chicago, key indicators have moved in a positive direction; however, health disparities persist. To reduce these remaining disparities and build greater health equity, CDPH recently completed a citywide community health assessment and is now developing a new, updated health improvement plan, known as Healthy Chicago 2.0.² In addition, CDPH has implemented the Healthy Chicago Survey to gather information from Chicagoans to estimate health behaviors, disease prevalence, and access to and utilization of health care services to monitor progress of the Healthy Chicago strategic plan.³ These activities will assist CDPH as it works to improve the health of Chicago residents.</p>
Healthy People 2020 Consortium	
Consortium Organizations	
Submit your organization	
State Coordinators	
State Plans	
Stay Connected	 <p>The Chicago Department of Public Health (CDPH) has implemented a number of activities aimed at reducing tobacco use among LGBT communities in Chicago.</p>

Fig. 4: Vulnerable Populations as Presented by Healthy Chicago 2.0 on HealthyPeople.gov.

The combination of discursive construction of resiliency and vulnerability, particularly when combined with the data-driven actions enabled by the *HealthyPeople.gov* site, create a constitutive rhetoric meant to unite government officials, health professionals, and the larger American citizenry in the cause of “resilience” perpetuated by good governmental policy and appropriate professional action. This falls into alignment with the argument of Bean, Keränen, and Durfy, who argue that “specific narratives and images associated with resilience must circulate among audiences to help shape their interpretations of events and guide their subsequent behaviors in the aftermath of a disaster” (2011, p. 432). The narratives and images of resilience offered by the federal government on the *HealthyPeople.gov* site reflect a systemic, coordinated approach to public health interventions. The actors in these interventions are addressed and called to action—to charitably do the work of “resilience,” whereas the objects of these interventions are quantified and portrayed as “vulnerable” through their race, class, age, or other identity marker.

These markers—used without the contextual information necessary to describe the vulnerable populations as more than “huddled masses”—in effect negate the presence and agency of the communities the federal government intends to work with through the Healthy People 2020 initiative. This othering of vulnerable communities is an extension of a project that has been operating since the inception of public work initiatives: identifying “vulnerable” communities through coded identity markers and silencing these communities, thus providing the appearance of working toward a public good despite doing little to address systemic reasons for identifiable disparities. This is the essence of Wander’s third persona, “being negated” in history and through silence providing a “moral significance” through what is and what is not said about these communities (1984, p. 210). The “anguish and confusion” surrounding systemic roots of health disparities are erased in the context of this kind of state-sponsored reporting (Wander, 1984, p. 210). This anguish and confusion reify the third persona not as corporeal entities through which the state can work but rather firmly places these communities in a liminal third space, negated by the rhetoric of resiliency and of vulnerability—working in tandem here, rather than opposition. These communities are spoken of, but never spoken to.

Rhetorical theory and criticism offer us tools to become involved in public controversies and confront the “material conditions” in society (Wander, qtd. in Klumpp & Hollihan, 1999, p. 84). Wander noted that

[t]hrough the Third Persona we may examine the rules for producing discourse (criticism) about discourse (rhetoric). The tendency for such rules to reflect, sanction, or obscure rules for the production of discourse in the public space when it comes to the negation of human beings (i.e. transforming some group, or class, or sex, or race into an “it”) suggests a link between theory and institutional framework underwriting the production of theory. (1984, p. 216)

Understanding the rhetorical construction of the Third Persona in the *HealthyPeople.gov* digital project affords an opportunity to intervene in health policy in meaningful ways, particularly, the manner in which that policy is presented to the public and to other stakeholders. A difficulty in the web content strategy of the ODPHP is the siloed nature that it presents information. Information that is geared toward citizen action (namely, taking care of one’s own

health) exists on other ODPHP websites, such as *health.gov* (Opel, 2018, p. 18). If *HealthyPeople.gov* is purposefully engaging public health professionals only, and then only focused on supplying these professionals with raw data, it limits the ability of the website to be a catalyst for other kinds of collective action.

To create a more diverse public sphere to deliberate population health, the ODPHP should consider bringing the content of these various websites together, considering how different forms of address to various stakeholders affect their ability to participate toward collective action. This requires a shift in the ODPHP's definition of resilience—moving from charitable action towards individuals with an inability to cope and toward ecological, relational action within communities. Should an individual want to understand the trends in health in her community as an informed citizen, what might that DATA2020 tool interface look like? This is only the beginning of work needed, work that connects rhetorical theory, communication design, and public health expertise in critical ways to bring a true public sphere for health deliberation and action into being.

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